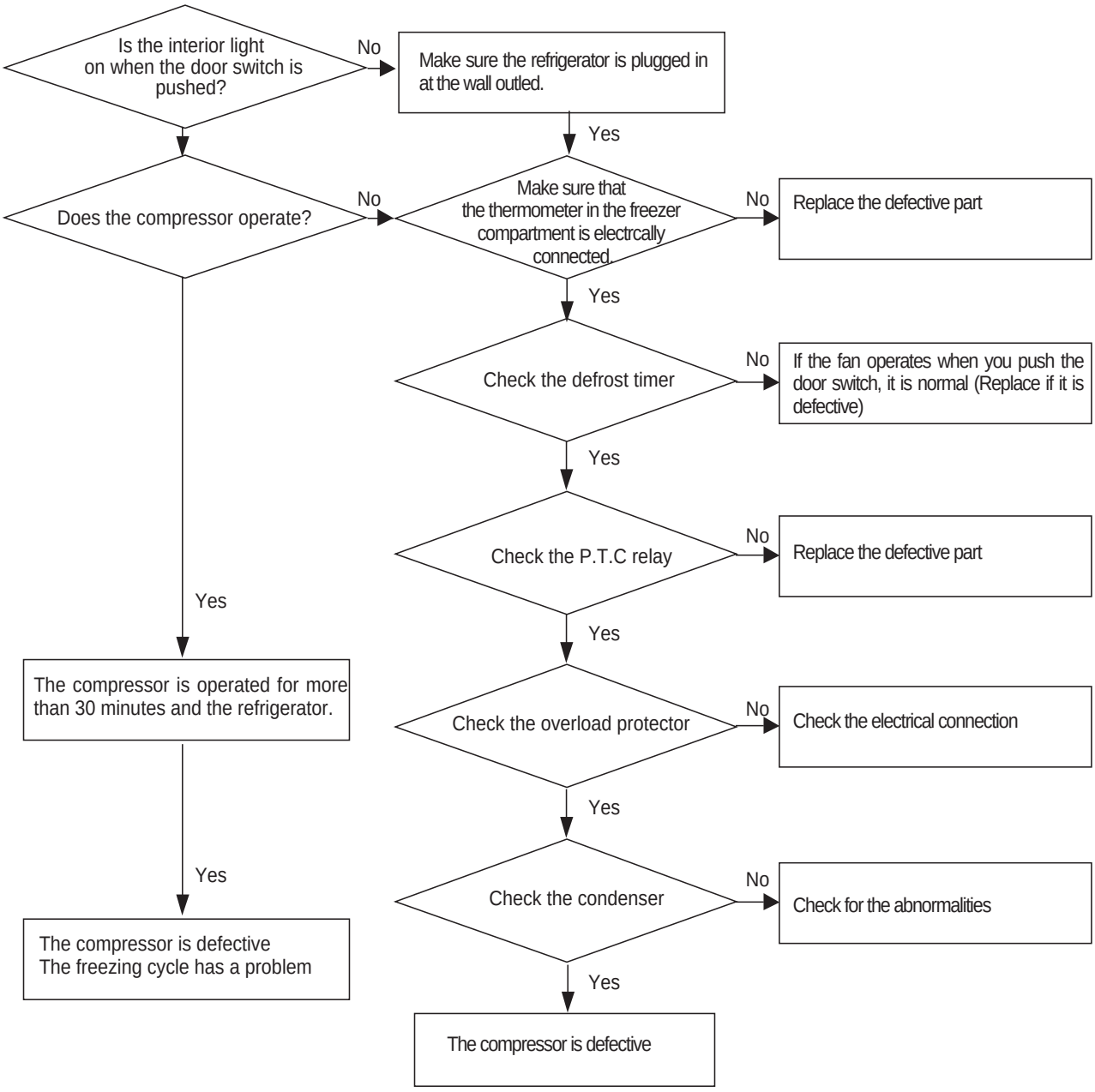
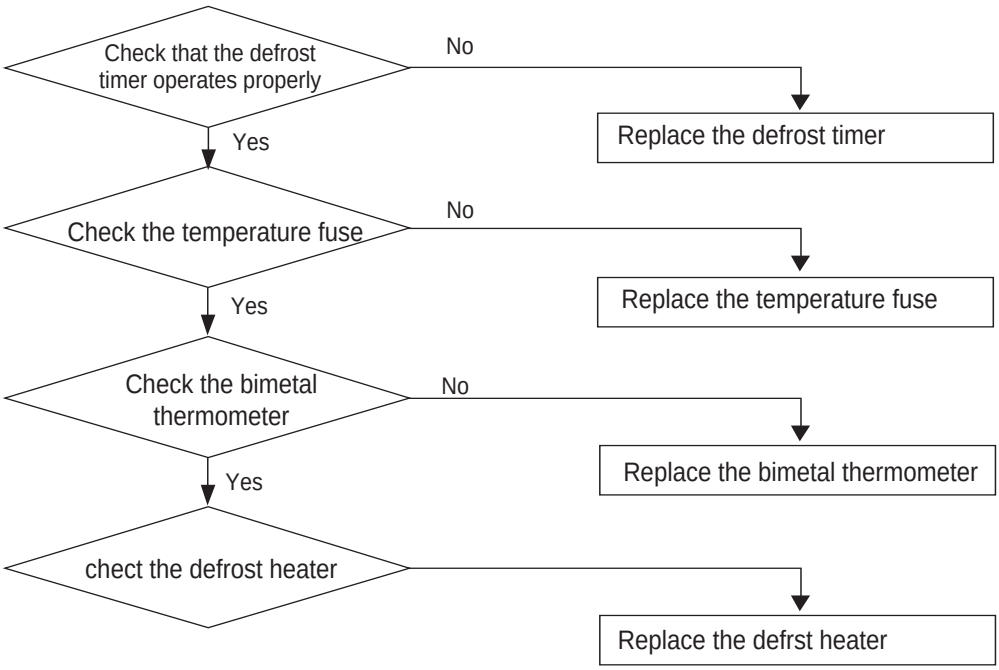
# 10.Troubleshooting method

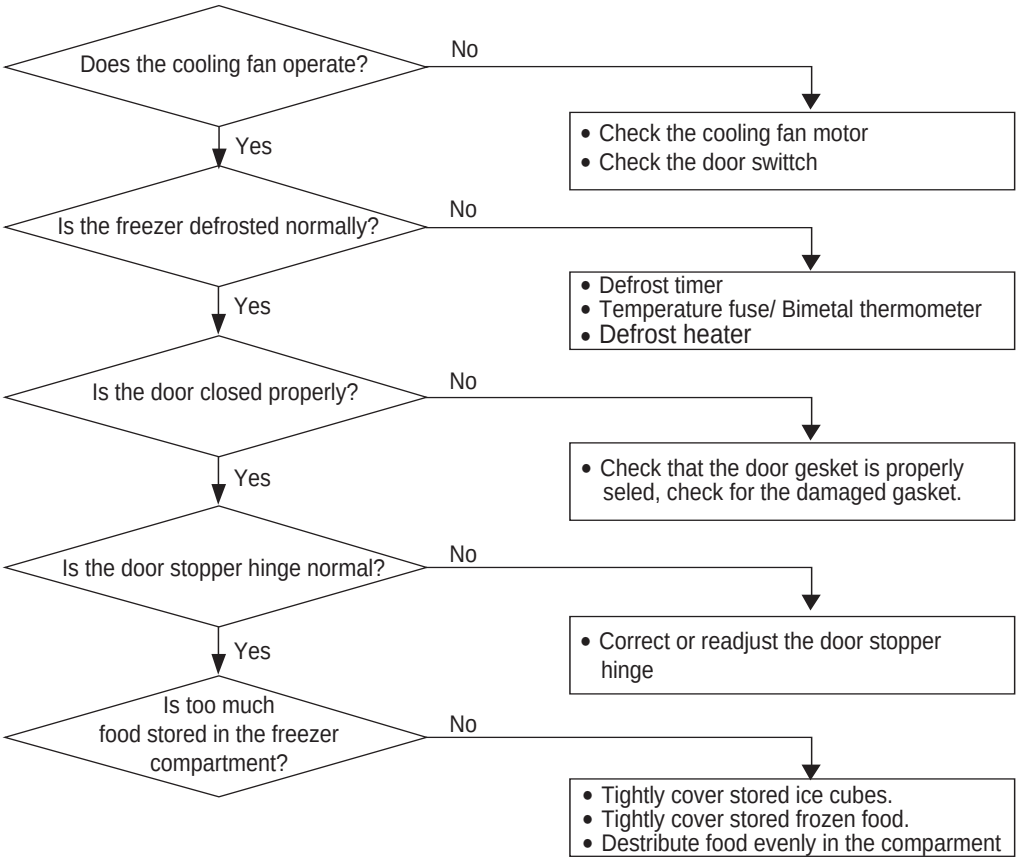
## 10-1. The refrigerator does not operate


Is the interior light on when the door switch is pushed?
No
Make sure the refrigerator is plugged in at the wall outled.
Yes
Does the compressor operate?
No
Make sure that the thermometer in the freezer compartment is electrcally connected.
No
Replace the defective part
Yes
Check the defrost timer
No
If the fan operates when you push the door switch, it is normal (Replace if it is defective)
Yes
Check the P.T.C relay
No
Replace the defective part
Yes
Check the overload protector
No
Check the electrical connection
Yes
Check the condenser
No
Check for the abnormalities
Yes
The compressor is defective
Yes
The compressor is operated for more than 30 minutes and the refrigerator.
Yes
The compressor is defective
The freezing cycle has a problem

## 10-2. Defrosting mechanism does not work




## 10-3. Defrosting mechanism does not work


Does the cooling fan operate?
No
• Check the cooling fan motor
• Check the door swittch
Yes
Is the freezer defrosted normally?
No
• Defrost timer
• Temperature fuse/ Bimetal thermometer
• Defrost heater
Yes
Is the door closed properly?
No
• Check that the door gesket is properly seled, check for the damaged gasket.
Yes
Is the door stopper hinge normal?
No
• Correct or readjust the door stopper hinge
Yes
Is too much food stored in the freezer compartment?
No
• Tightly cover stored ice cubes.
• Tightly cover stored frozen food.
• Destribute food evenly in the comparment

## 10-4. Trouble check for the cooling cycle

| Symptom | Cause | Suggestions |
|---|---|---|
| • The EVAP cools down and warms again<br>• The condenser warms in proportion as the EVAP cools,<br>• The process continues to repeat. | Moisture in the refrigerant causes the malfunction. | Replace the refrigerant. |
| • The condenser is cold<br>• The EVAP is not cold<br>• The temperature of the compressor is high | Foreign substances hamper the cooling cycle. | Locate the disturbed section and make repairs. |
| • No difference in temperatures between suction pipe and discharge pipe<br>• The temperature of the compressor is maintained at room temperature.<br>• The EVAPdoes not cool down. | The compressor is defected. | Replace the compressor. |
| • Frost on the suction pipe<br>• The condenser is overheated.<br>• The refrigeration in the EVAP is not effecient. | Too much refrigerant. | Replace the refrigerant. |
| • The condenser is cold.<br>• The compressor surface temperature is high.<br>• The refrigerator is not easily get cooled. | Refrigerant leaks.<br>(Slight refrigerant leakage causes partial cooling with frost on the EVAP) | After welding the leaked spot, replace the refrigerant. |

## 10-5. Diagnosing the main components

<table>
<tr><th>Components</th><th>Diagnosing methods and criteria</th><th>Location</th></tr>
<tr><td>Compressor</td><td>Use the tester to measure the resistance.<br>- Bring the component to cool down completely before measuring.<br><table><tr><th>Measuring point</th><th>Normal</th><th>Abnormal</th></tr><tr><td>Primary wire</td><td>Approx 10~500㏀</td><td rowspan="2">0Ω and<br>∞Ω</td></tr><tr><td>Secondary wire</td><td>3~20㏀</td></tr></table></td><td>Mechanical compartment</td></tr>
<tr><td>P.T.C Relay</td><td>Use the tester to measure the resistance.<br>- Bring the component to cool down completely before measuring.<br><table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>Approx ∞Ω ~ ㏀</td><td>0Ω and ∞Ω</td></tr></table></td><td>Mechanical compartment</td></tr>
<tr><td>Condenser</td><td>Use the tester to measure the resistance.<br><table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>Approx 10Ω ~80㏀</td><td>0Ω and ∞Ω</td></tr></table></td><td>Electrical equipment box</td></tr>
<tr><td>Overload relay</td><td>Use the tester to measure the resistance.<br>- Bring the component to cool down completely before measuring.<br><table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>Approx 200㏀</td><td>0Ω and ∞Ω</td></tr></table></td><td>Mechanical compartment</td></tr>
<tr><td>Circuit-motor<br>&<br>Fan-motor</td><td>Use the tester to measure the resistance.<br>- Bring the component to cool down completely before measuring.<br><table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>Approx 100Ω ~20㏀</td><td>0Ω and ∞Ω</td></tr></table></td><td>Mechanical compartment<br>Freezing compartment</td></tr>
<tr><td>Door switch</td><td>Use the tester to measure the resistance.<br><table><tr><th>Measuring point</th><th>Normal</th><th>Abnormal</th></tr><tr><td>A B contact point</td><td rowspan="2">Approx 200MΩ</td><td rowspan="2">0Ω and<br>∞Ω</td></tr><tr><td>When the switch is on by the contact</td></tr></table></td><td>Between the upper and the lower doors</td></tr>
<tr><td>Defrost timer</td><td>Use the tester to measure the resistance.<br><table><tr><th>Measuring point</th><th>Normal</th><th>Abnormal</th></tr><tr><td>Between terminals</td><td>Approx 200㏀</td><td rowspan="2">0Ω and<br>∞Ω</td></tr><tr><td>Temperature fuse terminal</td><td>Approx 10Ω ~300㏀</td></tr></table></td><td>Electrical equipment box</td></tr>
<tr><td>Defrost heater</td><td>Use the tester to measure the resistance.<br>- Bring the component to cool down completely before measuring.<br><table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>Approx 3㏀ ~6㏀</td><td>∞MΩ ~ ∞Ω</td></tr></table></td><td>Lower EVAP</td></tr>
<tr><td>Bimetal<br>Temperature fuse</td><td>Use the tester to measure the resistance.<br><table><tr><th>Measuring point</th><th>Normal</th><th>Abnormal</th></tr><tr><td>Bimetal terminal</td><td rowspan="2">Approx 200MΩ</td><td rowspan="2">∞Ω ~ ∞Ω</td></tr><tr><td>Temperature fuse terminal</td></tr></table></td><td>EVAP</td></tr>
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